REMARKS

The Office Action mailed June 6, 2006, has been received and reviewed. Claims 18 through 22, 24, and 28 through 34 are currently pending in the application. Claims 18 through 22, 24, and 28 through 34 stand rejected. Applicants have amended claims 18, 30 through 32 and 34 and respectfully request reconsideration of the application as amended herein.

Claim Objections

Claim 34 is objected to due to informalities in the claim language. Appropriate correction has been made.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 4,947,959 to Yuen, U.S. Patent No. 4,474,264 to Krause or U.S. Patent No. 3,811,151 to Kuemmerlin

Claims 18 through 20, 22, 24, 28, 29, and 32 through 34 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yuen (U.S. Patent No. 4,947,959), Krause (U.S. Patent No. 4,474,264) or Kuemmerlin (U.S. Patent No. 3,811,151). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 18 is directed to a ladder hinge and rail assembly. As amended herein, the assembly comprises: a first ladder rail; a second ladder rail; a first hinge component having a laterally extending hinge tongue, longitudinally extending rail mount section, and *an abutment shoulder extending across substantially an entire width of the longitudinally extending rail mount section*, wherein the longitudinally extending rail mount section of the first hinge component is partially longitudinally disposed within the first ladder rail; a second hinge component having a lateral hinge groove and a longitudinally extending rail mount section,

wherein the longitudinally extending rail mount section of the second hinge component is partially longitudinally disposed within the second ladder rail, and wherein the hinge tongue of the first hinge component is disposed within the hinge groove of the second hinge component and configured to provide relative rotation of the first and second hinge components about a defined axis from a first relative position of the first hinge component and the second hinge component to a second relative position of the first hinge component and the second hinge component, wherein the second relative position includes the first hinge component extending substantially longitudinally from the second hinge component and *wherein the shoulder abutment abuts a surface of the second hinge component in a substantially conformal manner.*

Yuen describes a folding ladder having four straight sections that are connected with insulating hinged joints. The joints can be tightened, such that they are "immovable," or they can be loosened, so that they are "movable," by means of a lever handle. The joints allow the sections to be adjusted such that the ladder may be configured in various ways. (See, e.g., Abstract and col. 2, lines 34 – col. 3, line 60).

However, Applicants find no description by Yuen, nor has the Examiner cited any specific passage, regarding a hinge component having an abutment shoulder. More particularly, Applicants fail to find any description by Yuen of a hinge component having *an abutment shoulder extending across substantially an entire width of the longitudinally extending rail mount section* which, when the hinge components are in a position where the first hinge component extends substantially longitudinally from the second hinge component, *the shoulder abutment abuts a surface of the second hinge component in a substantially conformal manner.*

Krause describes a collapsible, multi-purpose ladder that includes ladder stringers connected by joints such that the stringers can be locked in several operating positions (i.e., the stringers being locked to form relative angles of 90°, 135° and 180°). Krause appears to particularly focus on the hinge or joint of the ladder and describes it as including a locking disc having a plurality of notches formed therein. A locking member is configured to engage the notches and retain the joint and stringers in one of the desired angular positions. (See, e.g., Abstract and col. 3, line 13 – col. 4, line 58).

However, Applicants find no description by Krause, nor has the Examiner cited any

specific passage, regarding a hinge component having an abutment shoulder. More particularly, Applicants fail to find any description by Krause of a hinge component having *an abutment shoulder extending across substantially an entire width of the longitudinally extending rail mount section* which, when the hinge components are in a position where the first hinge component extends substantially longitudinally from the second hinge component, *the shoulder abutment abuts a surface of the second hinge component in a substantially conformal manner.*

Kuemmerlin describes a joint for collapsible ladders, wherein two members are pivotably connected to each other by means of a hinge pin. The joint or hinge assembly includes a locking rod which passes through bores in mating components of the hinge (i.e., flange portions 4 and 5 of members 2 and 3) to provide a locking action between the two members. (See, e.g., Abstract and col. 4, line 43 – col. 6, line 59). In one example, "[t]he locking rod portion 10...passes automatically into the bore 21 and the bore 20, as soon as the position illustrated in FIG. 3 is reach by members 2 and 3." (Col. 6, lines 45-48).

However, Kuemmerlin does not appear to expressly describe, nor has the Examiner cited any specific passage regarding, a hinge component having an abutment shoulder. While it is assumed that the Examiner might be considering one of the drawing figures as depicting such subject matter, Applicants submit that the drawings of Kuemmerlin, in and of themselves, fail to describe an abutment shoulder as recited by the presently claimed invention. In other words, the drawing figures of Kuemmerlin do not show adequate detail, without further description, to determine whether an abutment shoulder exists or whether various parts of the described joint are merely positioned laterally adjacent to one another. Indeed, Applicants submit that it would appear from the description of Kuemmerlin that an abutment shoulder is not required (the locking rod providing the locking of the hinge or joint members 2 and 3).

Moreover, even if one were to assume *arguendo* that Kuemmerlin describes an abutment shoulder on one of the hinge components, Applicants fail to find any description by Kuemmerlin of a hinge component having *an abutment shoulder extending across substantially an entire width of the longitudinally extending rail mount section* which, when the hinge components are in a position where the first hinge component extends substantially longitudinally from the second hinge component, *the shoulder abutment abuts a surface of the second hinge component*

in a substantially conformal manner.

As such, Applicants submit that claim 18 is clearly allowable over each of Yuen, Krause and Kuemmerlin.

Applicants further submit that claims 19, 20, 22, 24, 28, 29, and 32 through 34 are also allowable as being dependent from an allowable base claim as well as for the additional patentable subject matter introduced thereby.

With respect to claims 19 and 20, Applicants submit that the references relied upon by the Examiner fail to describe that an internal cross-sectional periphery of the first rail is configured to *interlock* with and transmit an applied loading to the rail mount section of the first hinge component or that an internal cross-sectional periphery of the second rail is configured to *interlock* with and transmit an applied loading to the rail mount section of the second hinge component. While the Examiner asserts that such subject matter is disclosed by the cited references, the Examiner has not pointed to any specific description to support this assertion.

Applicants further submit that the references relied upon by the Examiner fail to describe the hinge components, as recited in claim 18, which are formed as unitary members (claims 22 and 28) and which are extruded members (claims 24 and 29). Nor has the Examiner cited any specific passage regarding such subject matter.

With respect to claims 32 and 33, Applicants submit that the references relied upon by the Examiner fail to describe an abutment shoulder that includes a substantially arcuate surface. Nor has the Examiner cited any specific passage regarding such subject matter.

With respect to claim 33, Applicants submit that the references relied upon by the Examiner fail to describe an abutment shoulder that abuts the surface of the second hinge component along substantially the entire length of the arcuate surface. Nor has the Examiner cited any specific passage regarding such subject matter.

With respect to claim 33, Applicants submit that the references relied upon by the Examiner fail to describe the first hinge component and the second hinge component cooperatively define a beam when in the second relative position. Nor has the Examiner cited any specific passage regarding such subject matter.

Applicants, therefore, respectfully request reconsideration and allowance of claims 18

through 20, 22, 24, 28, 29, and 32 through 34.

Anticipation Rejection Based on U.S. Patent No. 4,890,950 to Yoo

Claims 30 and 34 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yoo (U.S. Patent No. 4,890,950). Applicants respectfully traverse this rejection, as hereinafter set forth.

Each of claims 30 and 34 depend from independent claim 18. Claim 30 recites the additional subject matter of the longitudinally extending rail mount section of the first hinge component exhibiting a varying cross-sectional geometry taken transverse to a longitudinal axis thereof, and wherein the longitudinally extending rail mount section of the first hinge component is partially longitudinally disposed within the first ladder rail in a substantially conformal and cooperatively mating relationship.

Claim 34 recites the additional subject matter of the first hinge component and the second hinge component cooperatively defining a beam when in the second relative position.

Yoo describes a joint for a folding ladder. The joint includes a pair of first joint members and a second joint member. Each of the joint members include and axial hole and several pairs of positioning holes. A button mechanism includes an axial shaft an a pair of locking bars. The axial shaft extends through the axial holes such that the joint members may rotate thereabout. The locking bars are selectively disposed within the positioning holes so as to lock the joint members in selected positions. (See, e.g., Abstract and col. 2, line 35 – col. 3, line 23).

However, Applicants submit that Yoo fails to describe all of the limitations of independent claim 18. For example, Applicants submit that Yoo fails to describe a hinge component having an abutment shoulder. Moreover, Applicants submit that Yoo fails to describe a hinge component having *an abutment shoulder extending across substantially an entire width of the longitudinally extending rail mount section* which, when the hinge components are in a position where the first hinge component extends substantially longitudinally from the second hinge component, *the shoulder abutment abuts a surface of the second hinge component in a substantially conformal manner.*

Additionally, with respect to claim 30, Applicants submit that Yoo fails to describe a

longitudinally extending rail mount section of the first hinge component exhibiting a varying cross-sectional geometry taken transverse to a longitudinal axis thereof, wherein the longitudinally extending rail mount section of the first hinge component is partially longitudinally disposed within the first ladder rail in a substantially conformal and cooperatively mating relationship.

Furthermore, with respect to claim 34, Applicants submit that Yoo fails to describe the first hinge component and the second hinge component cooperatively defining a beam when in the second relative position.

Applicants further note that the Examiner has not cited any specific passages of Yoo which are alleged to describe the various limitations of the presently claimed invention.

Applicants, therefore, respectfully request reconsideration and allowance of claims 30 and 34.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 4,890,950 to Yoo in view of either U.S. Patent No. 5,279,387 to Swiderski et al. or U.S. Patent No. 4,773,503 to Purkapile

Claims 21 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo (U.S. Patent No. 4,890,950) in view of either Swiderski et al. (U.S. Patent No. 5,279,387) or Purkapile (U.S. Patent No. 4,773,503). Applicants respectfully traverse this rejection, as hereinafter set forth.

> M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:
>
> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The 35 U.S.C. § 103(a) obviousness rejections of claims 21 and 31 are improper because

the references relied upon by the Examiner fail to teach or suggest all of the limitations of the presently claimed invention.

Each of claims 21 and 31 are dependent from independent claim 18. Claim 21 recites the additional subject matter of the rail mount section of the first hinge component including a first reinforcement segment, a second reinforcement segment and a web segment extending therebetween, wherein the first and second reinforcement segments each exhibit a greater cross-sectional thickness than a cross-sectional thickness of the web segment.

Claim 31 recites the additional subject matter of the longitudinally extending rail mount section of the second hinge component exhibiting a varying cross-sectional geometry taken transverse to a longitudinal axis thereof, and wherein the longitudinally extending rail mount section of the second hinge component is partially longitudinally disposed within the first ladder rail in a substantially conformal and cooperatively mating relationship.

The Examiner appears rely on Yoo as applied to claims 30 and 34 and then cites Swiderski and Purkapile as each disclosing reinforcing segments. The Examiner states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the stem position of Yoo to comprise reinforcing segments, as taught by either Swiderski or Purkapile. Applicants respectfully traverse this rejection.

As set forth hereinabove, Applicants submit that Yoo fails to teach or suggest all of the limitations of independent claim 18. For example, Applicants submit that Yoo fails to describe a hinge component having an abutment shoulder. Moreover, Applicants submit that Yoo fails to describe a hinge component having *an abutment shoulder extending across substantially an entire width of the longitudinally extending rail mount section* which, when the hinge components are in a position where the first hinge component extends substantially longitudinally from the second hinge component, *the shoulder abutment abuts a surface of the second hinge component in a substantially conformal manner.*

Applicants further submit that neither Swiderski nor Purkapile remedy the shortcomings of Yoo. As such, Applicants submit that claims 21 and 31 are clearly allowable over the references relied upon by the Examiner and respectfully request reconsideration and allowance thereof.

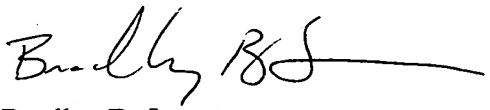
ENTRY OF AMENDMENTS

The amendments to claims 18, 30 through 32 and 34 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search.

CONCLUSION

Claims 18 through 22, 24, and 28 through 34 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



Bradley B. Jensen
Registration No. 46,801
Attorney for Applicants
TRASKBRITT
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

Date: September 6, 2006
BBJ/dlm:slm

Document in ProLaw